

JOHN PARADISO - 10/025,667

11. (New) A wrapping machine stretch head for use in connection with the packaging of a load within wrapping film, comprising:

a substantially vertically oriented downright;

a base plate inclined with respect to a substantially horizontal plane such that a first end of said base plate is disposed at a higher elevation than a second end of said base plate;

a supply roll of wrapping film rotatably mounted upon said first end of said base plate;

a carriage assembly, upon which said base plate is fixedly mounted, vertically movable upon said substantially vertically oriented downright between raised and lowered positions so as to enable wrapping film to be wrapped around the load throughout the vertical extent of the load;

a first tension roller having first and second ends defining a longitudinal roller axis therebetween, and wherein said first end of said first tension roller is rotatably mounted upon said base plate;

a second tension roller having first and second ends defining a longitudinal roller axis therebetween, said first end of said second tension roller is rotatably mounted upon said base plate, and wherein said second tension roller

is adapted to operatively cooperate with said first tension roller so as to define with said first tension roller a space therebetween through which a portion of said wrapping film, when withdrawn from said supply roll of wrapping film, can pass whereby a predetermined amount of tension is developed within said wrapping film when said wrapping film is withdrawn from said supply roll of wrapping film and routed around said first and second tension rollers so as to be conveyed in a predetermined direction toward the load to be wrapped;

motor drive means operatively connected to first and second tension rollers for rotatably driving said first and second tension rollers;

a strain gauge roller rotatably mounted upon said second end of said base plate, and disposed downstream from said second tension roller, as considered in said predetermined direction of conveyance of said wrapping film from said supply roll of wrapping film to the load, for sensing said amount of tension developed within said wrapping film and for controlling said motor drive means in accordance with said sensed amount of tension;

a first idler roller rotatably mounted upon said second end of said base plate and disposed downstream from

said strain gauge roller, as considered in said predetermined direction of conveyance of said wrapping film from said supply roll of wrapping film to the load, said wrapping film being routed around an external surface portion of said strain gauge roller which faces away from said supply roll of wrapping film, and around an external surface portion of said first idler roller which faces toward said supply roll of wrapping film; such that the outfeed flow path portion of said wrapping film which extends between said strain gauge roller and said first idler roller is disposed at an angle of approximately 90° with respect to the infeed flow path portion of said wrapping film which extends between said second tension roller and said strain gauge roller; and

a second idler roller rotatably mounted upon said second end of said base plate and disposed remotely downstream from said first idler roller, as considered in said predetermined direction of conveyance of said wrapping film from said supply roll of wrapping film to the load, such that said wrapping film is routed around an external surface portion of said second idler roller which faces away from said supply roll of wrapping film, and the portion of said wrapping film which extends between said first and second idler rollers is disposed at a substantially obtuse angle with re-

spect to said portion of said wrapping film which extends between said strain gauge roller and said first idler roller, whereby said second idler roller will be disposed at the lowest elevational level upon said carriage assembly, due to said inclination of said base plate with respect to said horizontal plane, such that when said wrapping film is conveyed from said second idler roller to the load during a load wrapping operation, said wrapping film will be able to be applied to the lowermost elevational levels of the wrapped load.

13. (New) A wrapping machine stretch head for use in connection with the packaging of a load within wrapping film, comprising:

a substantially vertically oriented downright;

a base plate inclined with respect to a substantially horizontal plane such that a first end of said base plate is disposed at a higher elevation than a second end of said base plate;

a supply roll of wrapping film rotatably mounted upon said first end of said base plate;

a carriage assembly, upon which said base plate is

fixedly mounted, vertically movable upon said substantially vertically oriented downright between raised and lowered positions so as to enable wrapping film to be wrapped around the load throughout the vertical extent of the load;

a first tension roller having first and second ends defining a longitudinal roller axis therebetween, and wherein said first end of said first tension roller is rotatably mounted upon said base plate;

a second tension roller having first and second ends defining a longitudinal roller axis therebetween, said first end of said second tension roller is rotatably mounted upon said base plate, and wherein said second tension roller is adapted to operatively cooperate with said first tension roller so as to define with said first tension roller a space therebetween through which a portion of said wrapping film, when withdrawn from said supply roll of wrapping film, can pass whereby a predetermined amount of tension is developed within said wrapping film when said wrapping film is withdrawn from said supply roll of wrapping film and routed around said first and second tension rollers so as to be conveyed in a predetermined direction toward the load to be wrapped;

motor drive means operatively connected to first

and second tension rollers for rotatably driving said first and second tension rollers;

a strain gauge roller rotatably mounted upon said second end of said base plate, and disposed downstream from said second tension roller, as considered in said predetermined direction of conveyance of said wrapping film from said supply roll of wrapping film to the load, for sensing said amount of tension developed within said wrapping film and for controlling said motor drive means in accordance with said sensed amount of tension;

a first idler roller rotatably mounted upon said second end of said base plate and disposed downstream from said strain gauge roller, as considered in said predetermined direction of conveyance of said wrapping film from said supply roll of wrapping film to the load, said wrapping film being routed around an external surface portion of said strain gauge roller which faces away from said supply roll of wrapping film, and around an external surface portion of said first idler roller which faces toward said supply roll of wrapping film, such that the outfeed flow path portion of said wrapping film which extends between said strain gauge roller and said first idler roller is disposed at an angle of approximately 90° with respect to the infeed flow path portion

of said wrapping film which extends between said second tension roller and said strain gauge roller; and

a second idler roller rotatably mounted upon said second end of said base plate and disposed remotely downstream from said first idler roller, as considered in said predetermined direction of conveyance of said wrapping film from said supply roll of wrapping film to the load, such that said wrapping film is routed around an external surface portion of said second idler roller which faces away from said supply roll of wrapping film, and the portion of said wrapping film which extends between said first and second idler rollers is disposed at a substantially obtuse angle with respect to said portion of said wrapping film which extends between said strain gauge roller and said first idler roller, whereby said second idler roller will [so as to] be disposed at the lowest elevational level upon said carriage assembly, due to said inclination of said base plate with respect to said horizontal plane, such that when said wrapping film is conveyed from said second idler roller to the load during a load wrapping operation, said wrapping film will be able to be applied to the lowermost elevational levels of the wrapped load;

said second idler roller having a sleeve member,

disposed around an external peripheral portion thereof, for effectively causing said wrapping film to adhere thereto in such a manner that while relative conveyance of said wrapping film, from said supply roll of wrapping film toward the load is permitted, transverse movement along said second idler roller in a direction parallel to the longitudinal rotational axis of said second idler roller is effectively prevented so as to prevent said wrapping film from undergoing any slippage with respect to said second idler roller.